

CLAIMS

1. An optical device having a plurality of light modulating devices for modulating a plurality of color light components in accordance with image information for every color light component and an color synthesizing optical device having a plurality of light flux incident end surfaces opposing the respective light modulating devices for synthesizing and emitting the color light components modulated by the respective light modulating devices, comprising:

a plurality of incident side transparent members made of a thermal conductive material, which are interposed between respective members of the light flux incident end surfaces and the light modulating devices and are connected to the light modulating devices,

wherein at least two incident side transparent members of the plurality of incident side transparent members are different in thermal resistance.

2. An optical device having a plurality of light modulating devices for modulating a plurality of color light components in accordance with image information for every color light component and an color synthesizing optical device having a plurality of light flux incident end surfaces opposing the respective light modulating

devices for synthesizing and emitting the color light components modulated by the respective light modulating devices, comprising:

5 a plurality of incident side transparent members made of a thermal conductive material, which are interposed between respective members of the light flux incident end surfaces and the light modulating devices excluding at least one space and are connected to the light modulating devices.

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3. The optical device according to claim 1, wherein at least two incident side transparent members of the plurality of incident side transparent members are made of thermal conductive materials having different thermal
15 conductivities.

4. The optical device according to claim 1, wherein at least two incident side transparent members of the plurality of incident side transparent members have
20 different sectional areas in a direction along an end surface crossing the plurality of light flux incident end surfaces of the color synthesizing optical device.

5. The optical device according to claim 1, further
25 comprising a pedestal provided in at least one end

surface of end surfaces crossing the light flux incident
end surfaces of the color synthesizing optical device and
made of a thermal conductive material,

wherein the incident side transparent members are
5 connected to side surfaces of the pedestal.

6. The optical device according to claim 1, further
comprising an emitting side transparent member made of a
thermal conductive material, which oppose a light flux
10 emitting end surface of the color synthesizing optical
device.

7. The optical device according to claim 6, wherein
the emitting side transparent member has a thermal
15 resistance smaller than those of the incident side
transparent members.

8. The optical device according to claim 7, wherein
the emitting side transparent member is made of thermal
20 conductive material having a thermal conductivity larger
than those of the incident side transparent members.

9. The optical device according to claim 7, wherein
a sectional area of the emitting side transparent member
25 in a direction along an end surface crossing the

plurality of light flux incident end surfaces of the color synthesizing optical device is larger than those of the incident side transparent members.

5 10. A projector for modulating a light flux emitted from a light source in accordance with image information to form an optical image, and enlarging and projecting the optical image, comprising the optical device according to claim 1.

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 11. The projector according to claim 10, wherein the optical device comprises an emitting side transparent member made of a thermal conductive material, which oppose a light flux emitting end surface of the color
15 synthesizing optical device, and

 in an optical component case body for housing the optical device, ventilating openings for passing cooled air are formed at positions in accordance with the respective light flux incident end surfaces and the light
20 flux emitting end surface of the color synthesizing optical device.

 12. A projector for modulating a light flux emitted from a light source in accordance with image information
25 to form an optical image, and enlarging and projecting

the optical image,

wherein the projector comprises the optical device according to claim 2.

5 13. A projector for modulating a light flux emitted from a light source in accordance with image information to form an optical image, and enlarging and projecting the optical image,

 wherein the projector comprises the optical device
10 according to claim 4.

 14. A projector for modulating a light flux emitted from a light source in accordance with image information to form an optical image, and enlarging and projecting
15 the optical image,

 wherein the projector comprises the optical device according to claim 7.

 15. The optical device according to claim 2,
20 wherein at least two incident side transparent members of the plurality of incident side transparent members are made of thermal conductive materials having different thermal conductivities.

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